STIG-Biot ch/ChemLib

From:

Sent:

Gibbs, Terra Friday, September 13, 2002 1:40 PM STIC-Biotech/ChemLib

To:

Subject:

SEQ Search

Could you please search SEQ ID NO: 3 of serial number 10/008789

Please do a length limited search of 50 nucleotides or less. Also no EST's.

Terra Gibbs #79523 **AU 1635** Mailbox 11E12 306-3221

THANK YOU!

Searcher: _____

Phone: _____

Clerical:

Location:

Online time: ____

Date Picked Up: 9 14 @

Date Completed: // // // Searcher Prep/Review: ____

Edward Hart Technica: Info. Specialist STIC/Biotech CMI 6B02 Tel: 305-9203

TYPE OF SEARCH: VENDOR/COST (where applic.) STN: ______ NA Sequences: ______ AA Sequences: Structures: Questel/Orbit: _____ Bibliographic: DRLink: ______ Litigation: Lexis/Nexis: ____ Sequence Sys.: _______ Full text: Patent Family: WWW/Internet: _____ Other (specify): _____ Other: _____

```
Post-processing: Minimum Match
Maximum Match
Listing first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Scoring table:
                                                                                    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nucleic search, using sw model
                       Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       length: 0
length: 50
                                                                                                                                                   GenEmbl: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1797656 seqs, 10463268293 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-008-789-3
1755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          September 18, 2002, 00:00:48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Copyright (c) 1993 - 2000 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gb_pat:
                                                                                                                                             em_un:*
em_vi:*
em_htg_inv:*
em_htg_other:*
em_htgo_inv:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3p_on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    сусссууусаууісссавав.....аваааваааааааааааа 1755
                                                                                                                                                                                                                               gb_ro: *
gb_sts: *
gb_vi: *
gb_vi: *
gb_vi: *
gb_vi: *
gb_vi: *
em_bi: *
em_hum: *
em_hum: *
em_mu: *
em_pat: *
em_ro: *
em_ro: *
em_sts: *
em_sts: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100%
45 St
                         ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                summaries
                                                                  SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         : Search time 2325.86 Seconds (without alignments) 15790.319 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            708260
                   Description
                                                                                                                          REFERENCE
AUTHORS
TITLE
JOURNAL
                                                         BASE COUNT
ORIGIN
                                                                                                                                                                                             VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                  RESULT 1
AR079463
LOCUS
DEFINITION
ACCESSION
                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0000 000000000000
 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                     Source
                                                                                  Unclassified.

1 (bases 1 to 48)

1 (bases 1 to 48)

Wickham, T.J., Kovesdi, I. and Brough, D.E.

Vectors and methods for gene transfer to ce

L Patent: US 5965541-A 14 12-OCT-1999;

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                        Unknown
Unknown
                                                                                                                                                                                                                                   AR079463 4
Sequence 14 from patent US
AR079463
AR079463.1 GI:10006207
                                                                      30
                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                /organism-"unknown"
4 c 6 g
 1.7%;
                                                                                                                                                                                                                                                                                                                                                                                       129923
AX009602
132121
AX183756
AR0135443
AX183754
AR135445
AX187581
AX287577
AXX87579
AXX87579
AXX8759496
AXX8759496
AXX8759496
AXX8756
AXX87576
AXX8756
AXX8756
AXX8756
AXX8756
AXX8756
AXX8756
AXX8756
AXX87576
AXX8756
AXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AX299729
AX114342
AX166869
Score 30.6; DB 6; Pred. No. 2.2e+04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HSA24194
                                                                                                                                                                                                                                                                                                                                             ALIGNMENTS
                                                                                                                                                                                                                                                           48 bp 1
S 5965541.
                                                                  œ
                                                                  ~
                                                                                                                                                                                                                                                                        DNA
                                                                                                                                    cells
           Length 48;
                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AR079463 Sequence 129924 Sequence 43 129930 Sequence 43 129925 Sequence 40 AX299729 Sequence 40 AX299729 Sequence 40 AX299729 Sequence AX166869 Sequence AX166869 Sequence AX266869 Sequence 122121 Sequence 122121 Sequence 122121 Sequence AR093361 Sequence AR193443 Sequence AR193443 Sequence AX187577 Sequence AX187577 Sequence AX287581 Sequence AX287583 Sequence AX287583 Sequence AX287583 Sequence AX159492 Sequence AX159492 Sequence AX159492 Sequence AX159496 
                                                                                                                                                                                                                                                                                                                                                                                                           AX009601
AX209737
AR099783
AR108836
AR127808
AR127808
AR135337
AR153821
AR177970
AR153821
                                                                                                                                                                                                                                                                                                                                                                                    AX041011
AX046432
                                                                                                                                                                                                                                                                        PAT 31-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                 1 Sequence
2 Sequence
3 Sequence
4 Sequence
7 Sequence
7 Sequence
8 Sequence
1 Sequence
2 Sequence
```

winimum Maximum

88

Sequence:

ş

nucleic 9:

.

Database

Result

Score

```
Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OM nucleic -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-008-789-3
1755
1 cgcccgggcaggtc
                1: \SIDSI\gcgdata\geneseq\geneseqn\cdot embl\Na1980\data\\
2: \SIDSI\gcgdata\geneseq\geneseqn\cdot embl\Na1980\data\\
2: \SIDSI\gcgdata\geneseq\geneseqn\cdot embl\Na1981\data\\
4: \SIDSI\gcgdata\geneseq\geneseqn\cdot embl\Na1982\data\\
4: \SIDSI\gcgdata\geneseq\geneseqn\cdot embl\Na1983\data\\
4: \SIDSI\gcgdata\geneseq\geneseqn\cdot embl\Na1983\data\\
5: \SIDSI\gcgdata\geneseq\geneseqn\cdot embl\Na1985\data\\
5: \SIDSI\gcgdata\geneseq\geneseqn\cdot embl\Na1985\data\\\
5: \SIDSI\gcgdata\geneseq\geneseqn\cdot embl\Na1985\data\\\
7: \SIDSI\gcgdata\geneseq\geneseqn\cdot embl\Na1985\data\\\
7: \SIDSI\gcgdata\geneseq\geneseqn\cdot embl\Na1985\data\\\
7: \SIDSI\gcgdata\geneseq\geneseq\geneseqn\cdot embl\Na1987\data\\\
7: \SIDSI\gcgdata\geneseq\geneseq\geneseqn\cdot embl\Na1980\data\\\
7: \SIDSI\gcgdata\geneseq\geneseq\geneseq\end\data\geneseq\geneseq\end\data\geneseq\geneseq\end\data\geneseq\geneseq\end\data\geneseq\geneseq\end\data\geneseq\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\geneseq\end\data\genes\data\geneseq\end\data\genes\data\geneseq\end\data\geneseq\end\data\genes\data\geneseq\end\data\genes\data\genes\data\genese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IDENTITY_NUC Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N_Geneseq_032802:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1736436 seqs, 858457221 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    September 18, 2002, 01:22:31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cycccygycagytcccaaaa.....aaaaaaaaaaaaaaaa 1755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; Search time 217.49 Seconds (without alignments) 13854.360 Million cell updates/sec
```

and is derived Pred. No. is the number of results predicted by chance to have a sater than or equal to the score of the result being printed. rived by analysis of the total score distribution.

ი	ი		n		ဂ	a	O	ი	Result
9	æ	7	Ģ	տ	4	w	N	-	
24.4	24.6	24.8	25.6	25.6	26	26.4	26.6	28	It Query
1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.6	Query Query Match Length DB
40	40	47	44	37	45	40	.46	40	Length (
24	22	20	22	19	22	22	22	22	
AAD22099	AAH20340	AAZ01118	AAL28737	AAV12343	AAL32265	AAH20360	AAL28897	AAH20344	SUMMARIES
PCR primer, BAR-G	HHV6 virus p41 gen	Probe for human PG	Human SNP oligonuc	Ribonucleotide red	Human SNP oligonuc	HHV6 virus p41 gen	Human SNP oligonuc	HHV6 virus p41 gen	Description

Detecting the presence of a specific nucleic acid in a sample containing DNA, useful in scanning large genomic fragments for the

WPI; 2001-315577/33

Rovera G,

Mukhopadhyay S;

0	000	نبا نبا نبا		ם נו נו	ω NI	NNI	ผผพ	000) N L L		0000
ωAΝ											144220
233	ω ω <u>ω</u>		2222	, ω ω	ωω		444	ωω.	$\omega \omega \omega \omega$	ωω.	400000
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1											11111
41 42 44	50 50	47 48	4 4 4 0 0 0 0	556	4 5	4 4 5	444	444	36 37	50	44 44 45 45 45
22 22 22	22	20	24 4 2 2	224	22	20	21 21	18	19	22	220
ABA04734 AAH20332 AAF60443	AAI75881 AAI75883	104 921 767	AAL28963 AAS95732 AAS95736	299	AAD18751 AAS95730	15	AAX81146 AAC67861 AAZ49294	AAQ70569 AAT48509	245	925	പരഅയ⊢
Human ublquitin-bi Rabies virus glyco DNA oligonucleotid	Human silent SNP c	for human Pe member clu	Human SNP oligonuc Allele discriminat Allele discriminat	ele discrimina an silent SNP	#1 used for e discrimina	or HIV	Synthetic FPV prom Fowlpox vector syn Synthetic pox viru	۰,	Human SNP oligonuc PR-1 promoter prim Human inflammatory Vocation (Fig. 1)		erium 16S ana at cb P oligonu P oligonu P oligonu

AL, I CNMENTS

```
AAH20344/c
ID AAH20344 standard; DNA; 40 BP.
                                                                                                                                                                                                                                                                       RESULT
                                                                                                                                                Human herpesvirus 6.
Synthetic.
                                                                                                                                US6221635-B1.
                                                                                                                                                                        Primer; solid phase amplification of DNA template; SPADT; genomic scanning; bacterial diagnostic; p41; HHV6; ss.
                                                                                                                                                                                                  HHV6 virus p41 gene specific primer p41FH373 SEQ ID 25
                                                                                                                                                                                                                    01-AUG-2001 (first entry)
                                                                                                                                                                                                                                     AAH20344;
                                                          (WIST-) WISTAR INST
                                                                           06-MAY-1999;
                                                                                            06-мат-1999;
                                                                                                             24-APR-2001.
                                                                           9905-0306290
                                                                                             9905-0306290
                                                                                                                                                                                  detection; RGP:
```

```
AAL28897/c
ID AAL28897 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cc specific nucleic acid in a sample containing DNA. The method comprises cc parforming solid phase amplification of DNA template (SPADT), 5' and 3' CC primers are irreversible bound to a solid support, and the DNA from a CC sample is absorbed and reversibly bound, incubated under amplification creation conditions and the presence of the specific target DNA is concleted. The method is useful for detecting the presence of a specific conclete acid (e.g. bacterial, viral or parasitic DNA) in a sample or in a CC call SPADT may be used for scanning or parasitic DNA) in a sample or in a CC call. SPADT may be used for scanning or parasitic DNA) in a sample or in a CC call. SPADT may be used for scanning or for bacterial diagnostics by scanning conting the ribosomal RNA genes; or for bacterial diagnostics by scanning for the presence of viral nucleic acid sequences in a sample. SPADT may complex. The present medicine by detecting and identifying species specific sequences or for the presence of major histocompatibility complex. The present sequence represents a primer specific for the human contemporary of the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                     Immunosuppressive; immunostimulatory; antiinflammatory; cytostatic; neuroprotective; antimicroblai; gene therapy; vaccine; amylase; cancer; amyloid protein; anglopoietln; apoptosis related protein; cadherin; cyclin; polymerase; oncogene; histone; kinase; colony stimulating factor; complement related protein; cytochrome; kinesin; cytokine; interferon; interleukin; G-protein coupled receptor; thioesterase; inflammation; multifactorial disease; autoimmune disease; infection; nervous system disease; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1720 aatccctcgagtttacaaaaaaaaaaaaaaaaa 1755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    amplification of DNA
Polymorphic nucleic acids encoding e.g. amylases, oncogenes and histones, useful for diagnosing and
                                                     WP1; 2001-465210/50
                                                                                                                                                     28-DEC-1999; 99US-0173419
27-DEC-2000; 2000US-0173419
                                                                                                                                                                                                      28-DEC-2000: 2000WO-US35498
                                                                                                                                                                                                                                         05-JUL-2001
                                                                                                                                                                                                                                                                          WO200147944-A2
                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human SNP oligonucleotide #2105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAL28897;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example
                                                                                                                     (CURA-) CURAGEN CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        36 AAACCCTCGTATATAGAAAAAAAAAAAAAAAAAA 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  invention relates to a method for detecting the presence of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Column 28;
                                                                                    RA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BP; 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first
                                                                                      Leach M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ņ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene families, comprises performing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        template
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     49pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ü
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ດ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 28; DB 22
Pred. No. 2e+03;
D; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ç.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 40;
 cyclins, polymerases treating, e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       solid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       phase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
```

```
ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 3
AAH20360/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       variants of proteins related to amylases, amyloid proteins, anglopoletin, apoptosis related proteins, cadharin, cyclin, polymerase, oncogenes, histones, kinases, colony stimularting factors, complement related proteins, cytochromes, kinesins, cytokines, interferons, interleukins, 6-protein coupled receptors and thioesterases. The present sequence is one such oligonucleotide. The oligonucleotides and treatment of diseases associated with inappropriate expression of the proteins listed above. Disorders that may be prevented, diagnossis and treatment of diseases associated with a genetic component, such as autoimmune diseases (e.g. rheumatoid arthritis, multiple sclerosis, diabetes, systemic lupus erythromatosus and Grave's disease), inflammation, cancer (e.g. cancers of the bladder, brain, breast, colon and kidney, leukaemia), diseases of the nervous system and an infection of pathogenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Primer; solid phase amplification of DNA template; SPADT; detection; RGP; genomic scanning; bacterial diagnostic; p41; HHV6; ss.
                                                                           Detecting the presence of a specific nucleic acid in a sample containing DNA, useful in scanning large genomic fragments for presence of genes or gene families, comprises performing solid amplification of DNA template
                                                                                                                                                                                                                                                                                                                                                                                                                            HHV6 virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-AUG-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 46 BP; 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Page 1984; 4143pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cancer, autoimmune diseases and infections
                                                                                                                                                                                                                                                                                                               US6221635-B1
                                                                                                                                                                                                                                                                                                                                          Synthetic.
                                                                                                                                                                                                                                                                                                                                                       Human herpesvirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAH20360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAH20360 standard;
                                                                                                                                               WPI; 2001-315577/33.
                                                                                                                                                                          Rovera
                                                                                                                                                                                                     (WIST-) WISTAR INST
                                                                                                                                                                                                                                                          06-MAY-1999;
                                                                                                                                                                                                                                                                                     24-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
nes 32; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            present invention relates to oligonucleotides encoding polymorphic
                                                                                                                                                                          'n
                                                                                                                                                                         Mukhopadhyay
                                                                                                                                                                                                                                                                                                                                                                                                                          p41 gene specific primer HHV8RP1191 SEQ
                                                   Column
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                               9905-0306290
                                                                                                                                                                                                                                                            9905-0306290
                                                                                                                                                                                                                                                                                                                                                          6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; 4 C; 3
                                                   28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1.5%;
                                                49pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ဂ္ပ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                   English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26.6; DB 22;
No. 4.4e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                             41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
```

This invention relates to a method for detecting the presence of a specific nucleic acid in a sample containing DNA. The method comprises performing solid phase amplification of DNA template (SPADT). 5' and 3'

```
88888888888888888888888888888888888
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAL32265/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      primers are irreversible bound to a solid support, and the DNA from a sample is absorbed and reversibly bound, incubated under amplification reaction conditions and the presence of the specific target DNA is detected. The method is useful for detecting the presence of a specific nucleic acid (e.g. bacterial, viral or parasitic DNA) in a sample or in a cell. SPADT may be used for scanning large genomic fragments for the presence of genes or gene families; or for bacterial diagnostics by examining the ribosomal RNA genes; or for viral diagnostics by scanning for the presence of viral nucleic acid sequences in a sample. SPADT may also be used in forensic medicine by detecting and identifying species specific sequences or for the presence of major histocompatibility species. The present sequence represents a primer specific for the human herpesvirus 6 (HHV6) p41 gene. The primer is used in an example illustrating the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Polymorphic nucleic acids encoding e.g. amylases, cyclins, polymerases, oncogenes and histones, useful for diagnosing and treating, e.g. cancer, autoimmune diseases and infections -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Immunosuppressive; immunostimulatory; antiinflammatory; cytostatic; neuroprotective; antimicrobial; gene therapy; vaccine; amylase; cancer; amyloid protein; anglopoletin; apoptosis related protein; cadherin; cycclin; polymerase; oncogene; histone; kinase; colony stimulating factor; complement related protein; cytochrome; kinesis; cytokine; interferon; interleukin; G-protein coupled receptor; thloesterase; inflammation; multifactorial disease; autoimmune disease; infection;
                                                                                                                                                                                     WPI; 2001-465210/50
                                                                                                                                                                                                                                                                                        28-DEC-1999;
27-DEC-2000;
                                                                                                                                                                                                                                                                                                                                          28-DEC-2000; 2000WO-US35498
                                                                                                                                                                                                                                                                                                                                                                                                            WO200147944-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human SNP oligonucleotide #5473.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24-JAN-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAL32265 standard:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 40 BP; 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nervous system disease; ss.
                                                                                                                                                                                                                                                       (CURA+) CURAGEN CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 Similarity 83.
30; Conservative
                                                                              Page 2962; 4143pp; English.
                                                                                                                                                                                                                      ₽
R
                                                                                                                                                                                                                                                                                      99US-0173419
2000US-0173419
                                                                                                                                                                                                                    Leach M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; 2 C; 6 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA; 45 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 26.4: D
Pred. No. 4.7e
0: Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4.7e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       , 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Caps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
```

```
р
                             ş
                                                                         Query Match
Best Local
                                                             Matches
                                                                                                                                                                                  proteins, cytochromes, kinesins, cytokines, interferons, interleukins, 6; protein coupled receptors and thioesterases. The present sequence is one such oligonucleotide. The oligonucleotides and the peptides encoded by them may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate expression of the proteins listed above. Disorders that may be prevented diagnosed and/or treated include multifactorial diseases with a genetic component, such as autoimmune diseases (e.g. rheumatoid arthritis, multiple sclerosis, diabetes, systemic lupus erythromatosus and Grave's disease), inflammation, cancer (e.g. cancers of the bladder, brain, breast, colon and kidney, leukagmia), diseases of the nervous system and an infection of pathogenic
                 Sequence 45
Similarity
                                                                                                                                          BP; 7
                                                             Conservative
                                                                                                                                          ?
                                                                         1.5%;
                                                                                                                                          N
                                                                                                                                          ü
                                                                                                                                          v
                                                             0
                                                                                                                                          ဂ္
                                                                         Score
Pred.
                                                                                                                                          <u>د</u>
                                                             Mismatches
                                                                                                                                          ..
H
                                                                             NO:
                                                                                                                                          0 other;
                                                                             6.1e+03;
                                                                                            B
                                                               10:
                              1755
                                                                                          Length 45;
                                                             0:
                                                           Gaps
                                                             0
```

```
AAV12343
housekeeping gene; identification; modulator; metastasis; neoplastic; papilloma; atherosclerosis; angiogenesis; viral infection; ss.
                                                          Ribonucleotide reductase R2; 3'-untranslated region; 3'UTR; tumour;
                                                                                                                    Ribonucleotide reductase R2 3'UTR fragment SEQ ID NO:42
                                                                                                                                                                           17-JUN-1998
                                                                                                                                                                                                                                                                                          AAV12343 standard;
                                                                                                                                                                                                                                                                                                                                              s
                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                             37
                                                                                                                                                                                                                                                                                             ЧB
```

08-JAN-1998 WO9800532-A2 Homo sapiens

01-JUL-1996; 30-JUN-1997;

96US-0021152 97WO-CA00454

(WRIG/) WRIGHT J A. YOUNG

WPI: 1998-086958/08

New oligo-nucleotide(s) complementary to untranslated regions of housekeeping genes - are useful in, e.g. identifying modulators tumour growth/metastasis and inhibiting growth of neoplastic ce cells 9

0

Claim 7: Page 32; 64pp; English.

The present sequence represents a 3'-untranslated region (3'UTR) fragment of ribonucleotides (ON) comprising at least 7 consecutive nucleotides (nt) of their analogues of a UTR of a housekeeping gene; (2) antisense ON (AON) complementary to ON; (3) ribozymes (Rb) complementary or homologous to ON, and able to cleave it; (4) DNA sequence encoding ON. OAN and Rb; (5) an antibody (Ab) that binds to ON, OAN and Rb; (6) a nt probe ntP that hybridise to ON, OAN and Rb. ON, AON, Rb and Ab are used to modulate (especially inhibit) growth of tumour cells (especially neoplastic cells) and to reduce their capacity for metastasis. The above may also be used to treat benign proliferative disorders e.g. papillomas, atherosclerosis.

The present invention relates to oligonucleotides encoding polymorphic variants of proteins related to amylases, amyloid proteins, anglopoietin, apoptosis related to proteins, cadherin, cyclin, polymerase, oncogenes, histones, kinases, colony stimulating factors, complement related

```
RESULT 6
AAL28737/c
ID AAL28737 standard; DNA; 44 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            angiogenesis and viral infections, e.g. human immunodeficiency virus, hepatitis or herpes. ON may further be used: (i) to identify modulators of tumour growth/metastasis; (ii) to identify compounds (especially potential antitumour agents) that inhibit or enhance interaction between ON and its binding substances; (iii) as probes for detecting related sequences, and (iv) to generate Ab. used for detection and quantification of UTR especially for monitoring progress of cancer therapy. SON inhibit tumorigenicity of neoplastic cells, particularly where these are
The present invention relates to oligonucleotides encoding polymorphic variants of proteins related to amylases, amyloid proteins, angiopoletin, apoptosis related proteins, cadherin, cyclin, polymerase, oncogenes, histones, kinases, colony stimulating factors, complement related proteins, cytochromes, kinases, cytochromes, kinases, cytochromes, interfewkins, Grenoteins cytochromes, kinesins, cytokines, interferons, interlewkins, Grenotein coupled receptors and thioesterases. The present sequence is one such oligonucleotide. The oligonucleotides and the peptides encoded by them may be used in the prevention, diagnosis and treatment of discases associated with inappropriate expression of the proteins listed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Immunosuppressive; immunostimulatory; antlinflammatory; cytostatic; neuroprotective; antimicrobial; gene therapy; vaccine; amylase; cancer; amyloid protein; anglopoletin; apoptosis related protein; cadherin; cyclin; polymersse; oncogene; histone; kinase; colony stimulating factor; complement related protein; cytochrome; kinesin; cytokine; interferon; interleukin; G-protein coupled receptor; thioseterase; inflammation; multifactorial disease; autoimmune disease; infection;
                                                                                                                                                                                                                                Polymorphic nucleic acids encoding e.g. amylases, oncogenes and histones, useful for diagnosing and cancer, autoimmune diseases and infections .
                                                                                                                                                                                                                                                                                                                                                                                                                  28-DEC-1999;
27-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human SNP oligonucleotide #1945.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAL28737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1724 cctcgagtttacaaaaaaaaaaaaaaaaaaa 1755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 37 BP; 27 A; 3 C;
                                                                                                                                                                                        Claim 1; Page 1937; 4143pp; English.
                                                                                                                                                                                                                                                                                                     WPI; 2001-465210/50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              05-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200147944-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nervous system disease; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24 - JAN - 2002
                                                                                                                                                                                                                                                                                                                                                                              (CURA-) CURAGEN CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   autoimmune diseases and infections
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                  99US-0173419
2000US-0173419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              hydroxyurea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US35498
                                                                                                                                                                                                                                                                                                                                          Leach M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.5%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2
G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 25.6; D
Pred. No. 7.1e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 . Let UJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 19;
                                                                                                                                                                                                                                            cyclins, polymerases, treating, e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
```

```
RESULT
AAZ01118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3366666666
В
                     The invention relates to a manimalian PG1 gene and protein, and a set of PG1 biallelic markers. The PG1 polynucleotide and biallelic markers are used in a hybridisation assay, a sequencing assay, or in an expensive the specific amplification assay for determining the identity of a conclectide at a PG1-related biallelic marker. The methods can be used to detect and to assess the risk of developing cancer or prostate cancer. CC carly-stage diagnosis of prostate cancer relies on prostate specific antigen (PSA) dosage. However, the effectiveness of this is limited due to its inability to discriminate between malignant and non-malignant caffections of the organ. A need exists for both a reliable diagnostic procedure which would enable early-stage diagnosts, and for preventative and curative treatments of the disease. The PG1 gene can be used for detection of prostate cancer, and the risk of developing it in the cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    above. Disorders that may be prevented, diagnosed and/or treated include multifactorial diseases with a genetic component, such as autoimmune diseases (e.g. rheumatoid arthritis, multiple sclerosis, diabetes, systemic lupus erythromatosus and Grave's disease). Inflammation, cancer (e.g. cancers of the bladder, brain, breast, colon and kidney, leukemia), diseases of the nervous system and an infection of pathogenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 4; Page 325; 385pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                          09-SEP-1998;
22-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cancer; prostate cancer; diagnosis; therapy; prostate specific antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Probe for human PG1 biallelic marker 4-4-187.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAZ01118 standard; DNA; 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 44 BP; 11
                                                                                                                                                                                                                                                                                                  Use of a prostate cancer associated
                                                                                                                                                                                                                                                                                                                                 WPI; 1999-405178/34.
                                                                                                                                                                                                                                                                                                                                                             Blumenfeld M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9932644-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PSA; human; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                           (GEST ) GENSET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PG1 gene; biallelic marker; PCR primer; PG1-related biallelic marker;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 Similarity
31; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                             Bouqueleret L,
                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0099658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98WO-1B02133
                                                                                                                                                                                                                                                                                                                                                                                                                            9705-0996306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1
C:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                 Chumakov 1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25.6; DB 22
No. 7.6e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ..
                                                                                                                                                                                                                                                                                                      gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              other;
                                                                                                                                                                                                                                                                                                      and biallelic markers
                                                                                                                                                                                                                                                                                                                                                                 Cohen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                 Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
```

Sequence

47 BP:

34

A: 2

C: 5

<u>ဂ</u>

6 T;

0 other

```
AAH20340/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                    CC This invention relates to a method for detecting the presence of a Specific nucleic acid in a sample containing DNA. The method comprises CC performing solid phase amplification of DNA template (SPADT). 5' and 3' CC primers are irreversible bound to a solid support, and the DNA from a CC sample is absorbed and reversibly bound, incubated under amplification conditions and the presence of the specific target DNA is CC detected. The method is useful for detecting the presence of a specific CC nucleic acid (e.g. bacterial, viral or parasitic DNA) in a sample or in a CC cell. SPADT may be used for scanning large genomic fragments for the CC presence of genes or gene families; or for bacterial diagnostics by Scanning CC examining the ribosomal RNA genes; or for viral diagnostics by Scanning CC complex. The presence of viral nucleic acid sequences in a sample. SPADT may CC also be used in forensic medicine by detecting and identifying species specific sequences or for the presence of major histocompatibility CC complex. The present sequence represents a primer specific for the human CC cherosvirus 6 (HHV6) p41 gene. The primer is used in an example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local :
Query Match

Best Local Similarity

Matches 30; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                          Detecting the presence of a specific nucleic acid in a sample containing DNA, useful in scanning large genomic fragments for the presence of genes or gene families, comprises performing solid phasamplification of DNA template
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Primer; solid phase amplification of DNA template: genomic scanning; bacterial diagnostic; p41; HHV6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAH20340 standard; DNA; 40 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1728 gagtttacaaaaaaaaaaaaaaaaaaa 1755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        06-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     06-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US6221635-B1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human herpesvirus 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HHV6 virus p41 gene specific primer p41FH92 SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-AUG-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                             Example 2; Column 28; 49pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPT: 2001-315577/33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (WIST-) WISTAR INST.
                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gagttaaaaaaaaaaaaaaaaaaaaa 47
                                                                              40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mukhopadhyay
                                                                              BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9905-0306290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9905-0306290
                                                                              9
                                                                              >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.48; 92.98;
                                                                              v:.
1.4%; Score 24.6; DB 22
76.9%; Pred. No. 1.3e+04;
Live 0; Mismatches 9
                                                                              ü
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                              <u>4</u>
G:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 24.8;
Pred. No. 1
                                                                              25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                              :
                                                                              0
                                                                              other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .2e+04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 20;
                              DB 22;
   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 47;
                              Length 40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SPADT; detection; RGP; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
 0
                                                                                                                                                                                                                                                                                                                                                                                                                                             phase
 Gaps
                                                                                                                                                                                                                                                       ۵
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
 0
```

```
RESULT 9
AAD22099/c
            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q
CC Haplotyping comprises analysing first and second alleles of a first polymorphic locus (PLI) by specifically capturing the nucleic acid sample on a surface, CC separately analysing a second SNP of a polymorphic locus of a nucleic acid sample to identify both alleles of SNP2, and determining the nucleic acid sample on a surface, CC acid sample to identify both alleles of SNP2, and determining the CC haplotype based on the identification of each allele of each SNP.

CC It is useful for screening DNA to identify polymorphic haplotypes, associated with predisposition to diseases as well as other genetically associated with predisposition to CC diseases as well as other genetically associated traits. SNP haplotypes, cc insulin-dependent diabetes mellitus (IDDM), multiple sclerosis, CC Alzheimer's disease and asthma, diagnostic analysis to determine CC antipolypes, paramacogenomic analysis to identify haplotypes or or cother trait, pharmacogenomic analysis to identify haplotypes that CC correlates with either positive or negative responses to drugs and CC SNP haplotypes, instead of single SNPs to increase the statistical cower. The methods of the invention are useful for identifying both normal phenotypes and disease phenotypes. They are useful for the cidentification of traits such as eye colour and for diagnostics to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human: Haplotype determination; single nucleotide polymorphism: SNP1; PL1; polymorphic locus; insulin-dependent diabetes mellitus; IDDM; multiple sclerosis; Alzheimer's disease; eye colour; asthma; cancer; neurofibromatosis type 2; cystic fibrosis; thalassaemia; phenylketonu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Haplotyping comprises separately analyzing first and second alleles first and second single nucleotide polymorphisms of two different polymorphic loci, and determining haplotype based on each allele identification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAD22099 standard; DNA; 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 04-APR-2000; 2000US-194425P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200175163-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PCR primer, BAR-G used for haplotyping hybridisation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAD22099;
                                                                                                                                                                                                                                                                                                                                                                                                                  The patent discloses high throughput methods for determining haplotypes. Haplotyping comprises analysing first and second alleles of a first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 2; Page 41; 77pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2002-010802/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Landers JE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (POLY-) POLYGENYX INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-MAR-2001: 2001WO-US10173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11-OCT-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /*tag= a
/mod_base= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note= "Amidated thymidine"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  thalassaemia; phenylketonuria;
```

```
B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      999999998×8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     determine presence or absence of predisposing disease haplotypes such as colon cancer, breast cancer, neurofibromatosis type 2, cystic fibrosis, thalassaemia and phenylketonuria. Identification of haplotypes associated with phenotypic traits is useful for identifying predisposition to disease. The methods are also useful in prematal screening to identify whether a foetus is afflicted with or is predisposed to develop a serious disease. The present DNA sequence is PCR primer, BAR-G used for haplotyping hybridisation in the exemplification of the invention.
modified_base
                                                                                                                                                    modified_base
                                                                                                                                                                                                                      modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          modified_base
                                                        modified_base
                                                                                   modified_base
                                                                                                                         modified_base
                                                                                                                                                                                           modified_base
                                                                                                                                                                                                                                                             modified_base
                                                                                                                                                                                                                                                                                                  modified_base
                                                                                                                                                                                                                                                                                                                              modified_base
                                                                                                                                                                                                                                                                                                                                                            Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                              Mycobacterium; 16S I
Mycobacterium other
                                                                                                                                                                                                                                                                                                                                                                                                        Mycobacterium 16S rRNA capture oligomer.
                                                                                                                                                                                                                                                                                                                                                                                                                             24-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                AAD11285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAD11285 standard; DNA; 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCCATTGGGTGAAAAAAAAAAAAAAAAAAAA 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      l Similarity
28; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP; 6 A; 6 C; 3 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                           sp
                                                                                                                                                                                                                                                                   /*tag= b
/mod_base= (
                                                                                                                                                                                                                                                                                                                                                                                       16S rRNA;
/mod_base-
                                                                                                                                                             /mod_base=
/note= "2'
                                                                                                                                                                                                                               /mod_base-
/note- "2'
                                                                 /mod_
                                                                                    /mod_base= OTHEK
/note= "2'-O-methoxy-thymidine"
                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                  /mod_base-
                                                                                                                                                                                                   /mod_base-
                                                                                                                                                                                                                                                  /*tag-
                                                                                                                                                                                                                                                                                                           /mod_base-
                   /*tag- )
                                    /mod_base-
                                                                          /* tag-
                                                                                                                /*tag-
                                                                                                                                            /*tag-
                                                                                                                                                                                  /*tag-
                                                                                                                                                                                                              /*tag=
                                                                                                                                                                                                                                                                                                                                                                            rRNA; 16S ribosomal RNA; amplification; than tuberculosis; MOTT; capture oligomer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.48;
                                                                 base-
                                                                                                               g
                                                                                                                                                                                  æ
                                                                                                                                                                                                                                                   n
                                                                           =
                                                                                                                                                                                                              a
                                                                                                                                                            OTHER
-O-methoxy-thymidine"
         g
                                     ç
                                                                                                                                   G
                                                                                                                                                                                                   g
                                                                                                                                                                                                                              -O-methoxy-adenosine*
                                                                                                                                                                                                                                         OTHER
                                                                                                                                                                                                                                                                     -O-methoxy-thymidine"
                                                                                                                                                                                                                                                                                OTHER
                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 24.4: D
Pred. No. 1.4e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .4e+04;
les 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         $\times CCCCCCCCCCCCCC\times C\times C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention relates to a method of detecting Mycobacterium species, characterium relates to a method of detecting Mycobacterium species. The involves amplifying Mycobacterium 16S ribosomal RNA (rRNA) or DNA encoding 16S rRNA in an in vitro nucleic acid amplification mixture comprising a polymerase, and at least two primers, and then detecting the amplified nucleic acid. The method is relatively simple and useful for detecting the presence of various Mycobacterium species in a biological sample, and thus important for diagnosis of infections resulting from them. The method is especially important for screening opportunistic infections caused by M. tuberculosis or a Mycobacterium other than tuberculosis (MOTT). The present sequence is a capture of oligomer that includes a sequence that specifically binds to the Mycobacterium rRNA target sequence and a 3' poly-A tail sequence complementary to an immobilised sequence for capturing the target rRNA on a solid support.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ouery Match
Best Local
     Environmental stress tolerance; plant; binding protein; DNA regulation; CBF-1; C-repeat/DRE binding factor; CCG regulatory sequence; COR; cold: cold-related gene; drought; high salinity; tissue-specific promoter;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1722 tccctcgagtttacaaaaaaaaaaaaaaaa 1755
                                                                                                                                                                                                                                                                                  AAZ23473 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Detecting Mycobacterium species, involves in vitro amplification of rRNA or DNA encoding RNA in nucleic acid amplification mixture using specific primers, and detecting the amplified nucleic acid .
                                                                                                                                                                            20-JAN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 48 BP; 32 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 6; Page 39; 44pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-398170/42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GENP-) GEN-PROBE INC. (INMR ) BIOMERIEUX SA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200144510-A2
                                                                                                                 thaliana at-cbfl gene PCR primer cbfl-forward
                                                                                                                                                                                                                                                                                                                                                                                                                     28; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ST,
                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Jucker MT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US30346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US30346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /mod_base= OTHER
/note= "2'-0-methoxy-thymidine"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /mod_base=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note-
                                                                                                                                                                                                                                                                                  DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             *2'-0-methoxy-adenosine*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "2' -0-methoxy-thymidine"
                                                                                                                                                                                                                                                                                  42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Delgado FD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3 G;
                                                                                                                                                                                                                                                                                  ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 24.4; DB 22
Pred. No. 1.5e+04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cleuziat
                                                                                                                                                                                                                                                                                                                                                                                                                        6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  φ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ٠,:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rodrigue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of 16S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
```

```
8
                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                     AAL28218/c
                                                                                                                                                                                                                               Ouery Match
Best Local s
Matches 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    03-FEB-1998;
03-FEB-1998;
03-FEB-1998;
                                                                                                                                                                                                                                                                                                                This invention describes novel binding proteins other than CBF-1 (C-repeat/DBE binding factor) in isolated form which comprise a consensus sequence capable of binding to a CCG regulatory sequence. The binding proteins are capable of binding to a DNA regulatory sequence, which regulates expression of one or more environmental stress tolerance genes, especially COR (cold-related) genes. Environmental stress may be, e.g. cold temperatures, drought and high salinity. Plants transformed with the binding protein (or sequences encoding it) can have altered environmental stress tolerance. The binding protein coding sequences can be under the control of tissue-specific promoters. AAZ22472-223475 represent PCR primers used in the amplification of the Arabidopsis thallana at-cbf1 gene describe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (MEND-)
                                                                                                                                                                                                 1721 atccctcgagtttacaaaaaaaaaaaaaaaaaaaa 1755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              03-FEB-1998;
03-FEB-1998;
                                                                                                                                                                                                                                                                                    Sequence 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Environmental stress tolerance gene binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Stockinger EJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    03-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-JAN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          W09938977-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PCR primer; at-cbf1;
neuroprotective; antimicrobial; gene therapy; vaccine; amylase; or amyloid protein; angiopoletin; apoptosis related protein; cadheric cyclin; polymerase; oncogene; histone; kinase; colony stimulating complement related protein; cytochrome; kinesin; cytokine; interfo
                                                                                                                                 AAL28218
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 4c;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI: 1999-561312/47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-NOV-1998;
                                         Immunosuppressive: immunostimulatory; antiinflammatory; cytostatic;
                                                                Human
                                                                                                                                                                                      σ
                                                                                                                                                                                     atccctcgtttctacaacaataaaataaaataaa
                                                                SNP oligonucleotide #1426
                                                                                                                                                                                                                                                                                                           method
                                                                                                                                                                                                                               l Similarity
28; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MENDEL BIOTECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   plant stress
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Thomashow MF;
                                                                                                                                                                                                                                                                                     BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Page 181;
                                                                                                                                                                                                                                Conservative
                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                         of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98US-0018233.
98US-0018234.
98US-0018235.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BIOTECHNOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98US-0017816
98US-0018227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9805-0198119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0017575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US01895
                                                                                                                                                                                                                                                                                     18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Jaglo-Ottosen
                                                                                                                                                                                                                                                                                     ?
                                                                                                                                 DNA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28
                                                                                                                                                                                                                                         1.4%;
                                                                                                                                                                                                                                                                                     ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                              252pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tolerance
                                                                                                                                 45
                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                     ū
                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                         Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INC
                                                                                                                                                                                                                                                                                     ဂ္
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ~
                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                     10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Zarka
                                                                                                                                                                                                                                         8 2
                                                                                                                                                                                                                                                                                     T; 0 other;
                                                                                                                                                                                                                                                   . .
                                                                                                                                                                                                                                        8; DB;
2e+04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ó
                                                                                                                                                                                      40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               proteins useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gilmour
                                                                                                                                                                                                                                                    20;
                                                                                                                                                                                                                               7:
                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š,
                                                                                                                                                                                                                                                     42;
                                                                                                                                                                                                                                                                                                                    primers used
gene described
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Jiang
                      cadherin;
  interteron;
                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ü
                                                                                                                                                                                                                               Gaps
                                 cancer;
          factor;
                                                                                                                                                                                                                               0
  RESULT 13
AAL28459/c
                                                                                                                                                                                                          8
                                                                                                                                                                                                                             ş
```

Matches Query Match Best Local

Similarity

1.48:

Score 23.8: Pred. No. 2

.le+04; BG 22; 2

Length Indels

45 0

Gaps

0

Mismatches

Conservative

1729

AATTTACAAAAATAAAAAAAAAAAAAA

30

AAL28459 standard; DNA: 46

BP

24 - JAN - 2002 AAL28459

(first entry)

oligonucleotide #1567.

Immunosuppressive: immunostimulatory: antiinflammatory: cytostatic: neuroprotective: antimicrobial: gene therapy: vaccine: amylase: cancer: amylold protein: angiopoietth: apoptosis related protein: cadherin; cyclin: polymerase: oncogene; histone: kinase; colony stimulating factor: complement related protein: cytochrome: kinase; cytokine; interforon: interleukin; G-protein coupled receptor: thioesterase; inflammation: multifactorial disease; autoimmune disease; infection;

```
proteins, cytochromes, kinesins, cytokines, interferons, interleukins, Gryrotein coupled receptors and thioesterases. The present sequence is one such oligonucleotide. The oligonucleotides and the peptides encoded by them may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate expression of the proteins listed above. Disorders that may be prevented, diagnosed and/or treated include multifactorial diseases with a genetic component, such as autoimmune diseases (e.g. rheumatoid arthritis, multiple sclerosis, diabetes, systemic lupus erythromatosus and Grave's disease), inflammation, cancer (e.g. cancers of the bladder, brain, breast, colon and kidney, leukaemia), diseases of the nervous system and an infection of pathogenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Polymorphic nucleic acids encoding e.g. amylases, oncogenes and histones, useful for diagnosing and cancer, autoimmune diseases and infections -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            interleukin; G-protein multifactorial disease; nervous system disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      variants of proteins related to amylases, amyloid proteins, angiopol apoptosis related proteins, cadherin, cyclin, polymerase, oncogenes, histones, kinases, colony stimulating factors, complement related to the complement rela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present
variants of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Shimkets RA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28-DEC-1999: 99US-0173419: 27-DEC-2000: 2000US-0173419:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-DEC-2000; 2000WO-US35498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200147944-A2
Sequence 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (CURA-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001-465210/50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURAGEN CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Page 1788; 4143pp; English
   BP:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             invention relates to oligonucleotides encoding polymorphic proteins related to amylases, amyloid proteins, angiopoletin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Leach M:
   æ
   A; 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   coupled receptor; thioesterase;
; autoimmune disease; infection;
   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ss.
       w
   ဂ္ဂ
   30 T;
           0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cyclins, polymerases, treating, e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              inflammation;
                                                                                                             of pathogenic
```

```
Ş
                                                                                                                                                                                                                                                                                          RESULT 14
AAL29941/c
                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention relates to oligonucleotides encoding polymorphic CC variants of proteins related to amplases, amploid proteins, angiopoietin, CC apoptosis related proteins, cadherin, cyclin, polymerase, oncogenes, CC histones, kinases, colony stimulating factors, complement related CC proteins, cytochromes, kinesins, cytokines, interferons, interleukins, CC orpotein coupled receptors and thioesterases. The present sequence is CC one such oligonucleotide. The oligonucleotides and the peptides encoded CC by them may be used in the prevention, diagnosis and treatment of CC diseases associated with inappropriate expression of the proteins listed CC above. Disorders that may be prevented, diagnosed and/or treated include CC multifactorial diseases with a genetic component, such as autoimmune CC diseases (e.g. rheumatoid arthritis, multiple sclerosis, diabetes, CC systemic lupus erythromatosus and Grave's disease), inflammation, cancer CC (e.g. cancers of the bladder, brain, breast, colon and kidney, cancer CC leukaemia), diseases of the nervous system and an infection of pathogenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                        Immunosuppressive; immunostimulatory; antiinflammatory; cytostatic; neuroprotective; antimicrobial; gene therapy; vaccine; amylase; cancer; amylold protein; angiopoletin; apoptosis related protein; cadherin; cyclin; polymerase; oncogene; histone; kinase; colony stimulating factor; complement related protein; cytochrome; kinesin; cytokine; interferon; interleukin; G-protein coupled receptor; thloesterase; inflammation; interleukin; G-protein coupled receptor; thiosesterase; inflammation; multifactorial disease; autoimmune disease; infection;
                                                                                                                                                                                                                                                                                                                                                                            1729 agtttacaaaaaaaaaaaaaaaaaaaa 1755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Page 1857; 4143pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Polymorphic nucleic acids encoding e.g. amylases, cyclins, polymerases, oncogenes and histones, useful for diagnosing and treating, e.g. cancer, autoimmune diseases and infections -
                                                                                                                                                                    Human SNP oligonucleotide #3149.
                                                                                                                                                                                                       24-JAN-2002
                                                                                                                                                                                                                                         AAL29941
                                                                                                                                                                                                                                                                         AAL29941 standard; DNA; 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Shimkets RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-DEC-1999; 99US-0173419
27-DEC-2000; 2000US-0173419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-DEC-2000; 2000WO-US35498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200147944-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ner::ous system
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (CURA-) CURAGEN CORP
                                                                                                                                                                                                                                                                                                                                                               27
                                                                                                                                                                                                                                                                                                                                                             AATTAACAAAAAAAAAAAAAAAAAA 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001-465210/50
                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity 92.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BP;
                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Leach M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ۵
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ?
                                                                                                                                                                                                                                                                                                                                                                                                                                             1.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ü
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
G;
                                                                                                                                                                                                                                                                           ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 23.8; DB 22
Pred. No. 2.1e+04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  36
                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                2
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                46;
                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                           S
```

04-JUN-1998;

9BDE-1024900 99EP-0110458

29-MAY-1999;

EP962536-A1

```
RESULT 15
AA24387/c
ID AA2438
XX AA2438
AC AA2438
XX 10-MAR
XX 10-MAR
XX RNA PO
XX RNA PO
XX Mycoba
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
""" Phes 25; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention relates to oligonucleotides encoding polymorphic contraints of proteins related to amylases, amyloid proteins, angiopoletin, apoptosis related proteins, cadherin, cyclin, polymerase, oncogenes, consisted proteins, catherin, cyclin, polymerase, oncogenes, consisted proteins, cytokines, interferons, interleukins, cyrothes, cytokines, interferons, interleukins, cyrothes, cytokines, cytokines, interferons, interleukins, consisted cytokines, cytokines, interferons, interleukins, colin and treatment of cytokines, interferons, interleukins, interferons, interferons, interleukins, interferons, interfero
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1729 agtttacamammammammammammm 1755
                                                                                                                                                                                                                                                                                                                         M. tuberculosis rpo-beta primer 10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Polymorphic nucleic acids encoding e.g. amylases, cyclins, polymerases, oncogenes and histones, useful for diagnosing and treating, e.g. cancer, autoimmune diseases and infections.
                                                                                                                                                                                                                 Mycobacterium
                                                                                                                                                                                                                                                                     RNA polymerase; rpo-beta; detection; diagnostic; trap probe; primer; ss
                                                                                                                                                                                                                                                                                                                                                                            10-MAR-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAZ43897 standard; DNA; 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Page 2289; 4143pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200147944-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27-DEC-2000; 2000US-0173419.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-DEC-2000; 2000WO-US35498.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (CURA-) CURAGEN CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2001-465210/50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGCTAACAAAAAAAAAAAAAAAAAA 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Leach M;
                                                                                                                                                                                                                    tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9905-0173419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; 4 C; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   92.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 23.8; DB 2
Pred. No. 2.1e+04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              င္ပ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 31 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ٠,:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                47:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
```

0

```
Search completed: September 18, 2002, 03:33:04 Job time: 7833 sec
                                                                                                    몽
                                                                                                                                       ş
                                                                                                                                                                                                                                                                                   Query Match 1.3%;
Best Local Similarity 86.7%;
Matches 26; Conservative
                                                                                                 This invention describes a novel method for the selective detection of nucleic acids which comprises amplification of the nucleic acid with the help of labeled primers and detection with a trap probe. The methods and reagents are used for the detection of a marker primer and at least 2 immobilized (or immobilizable) trap probes with the corresponding nucleic acid sequence of interest for mutation analysis. The method can be used to detect a specific sequence in a sample of one or more nucleic acids by using several sets of primers and trap probes (i.e. in an array). The methods are useful in molecular biology and diagnostic applications, especially for simultaneous detection of multi-pathogens, typing of organisms, analyzing genetic diversity and sequencing of genes or genomes. This sequence represents a primer used in the method of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Selective detection of nucleic acids by amplification with labeled primers and detection with a trap probe \,\cdot\,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-055287/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Weindel K, Brand J;
                                                                                                                                                                                                                                                                                   Sequence 38 BP; 4 A; 7 C; 5 G; 22 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 1c; Page 18; 27pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (HOFF ) ROCHE DIAGNOSTICS GMBH
                                                                                                                                                                                                                                                                                                                           invention.
                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                                   Score 23.6; DB 21; Length 38: Pred. No. 2.2e+04;
                                                                                                                                                                                  Indels
                                                                                                                                                                                  .:
                                                                                                                                                                                  Gaps
                                                                                                                                                                                  0:
```